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ABSTRACT

The need for specific information about principals as change facilitators prompted a long-range research program. A first step in this effort investigates the interventions principals make in relation to the implementation of an innovation in their schools. Subjects were 10 principals of elementary schools where an identifiable innovation operated. The number of interventions the principals reported during the study are analyzed according to the function of the intervention. The kind of planning the principals did relative to implementation of the innovation is also reported, along with a comparison of the type of planning they did with the number and kinds of interventions they made. Following the analysis of functions, comparisons were made among and between principals concerning the kind and number of functions they performed, the kind and number of functions based on number of years into the implementation effort, and the relationship between functions and the principal's planning. (MLF)

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THE INTERVENTIONS AND PLANS PRINCIPALS MAKE WHEN FACILITATING CHANGE

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R & D Report No. 3129

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THE INTERVENTIONS AND PLANS PRINCIPALS MAKE[1,2] WHEN FACILITATING CHANGE

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Introduction

For the past two decades a major theme in American education has been school improvement. A primary technique that has been used to accomplish the desired improvement has been to develop and offer to schools more, and supposedly better, programs. One indication of this approach to school improvement can be seen in Educational Programs That Work. This book that is published annually, describes programs developed by schools and judged to be exemplary by the Joint Dissemination Review Panel (JDRP) of the Department of Health, Education and Welfare. The 1979 edition of this book lists approximately 200 of these approved programs. In addition to this listing, there are untold numbers of other programs available to schools through a myriad of sources.

In the mid-1970's the Rand Corporation spent four years studying the effects of federally supported programs on school improvement. From this study one finding was, "The net return to the federal investment was the adoption of many innovations, the successful implementation of few, and the long-run continuation of still fewer. . ." (Berman and McLaughlin, 1978). It is evident

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[1]This paper was presented at Southwest Educational Research Association Annual meeting, Dallas, Texas, January 31, 1981.

[2]The research described herein was conducted under contract with the National Institute of Education. The opinions expressed are those of the author and do not reflect the position or policy of the National Institute of Education, and no endorsement by the National Institute of Education should be inferred.

that the mere availability, and even the introduction, of new programs into schools ensures neither school change nor improvement. Research conducted by the CBAM Project at the Research and Development Center for Teacher Education at the University of Texas at Austin confirms the fact that bringing about change in schools requires more than the selection and introduction of a new program (Hall and Loucks, 1977; Rutherford, 1975; Loucks, 1976; George and Hord, 1980).

In the rush to develop more and better programs for schools to use, the educational establishment seemed to ignore earlier research (Ross, 1951) that identified the principal as a key factor in the adaptability of the school and its response to change. When several recent research studies again affirmed the importance of the principal in the change process (Baldridge, 1975; Venezky and Winfield, 1976; Hall, Hord and Griffin, 1980), it was apparent that additional research in this area was needed. While the research has shown that principals are a key influence on educational change and school improvement, much less is known about the characteristics and behaviors of principals which relate to their role as change facilitator.

This obvious need for specific information about the principal as a change facilitator led the CBAM Project to design a long-range program for just this type of research. A first step in the effort is reported in this paper.

Purposes of the Study

The study upon which this report is based was a pilot study conducted to accomplish several purposes (See Griffin, Goldstein and Hall, 1981). One major purpose was to investigate the interventions principals make in relation to the implementation of an innovation in their school. It was an intent of the study to identify one or more techniques for collecting data which would be both cost

feasible and reliable for documenting the interventions principals made. Thus, one outcome of the study was the identification of a number of principal interventions. This investigation of principal interventions also generated a useful body of knowledge about the planning principals did relative to the implementation of the innovation in their schools.

The analyses of principal interventions that were documented were based on A Taxonomy of Interventions (Hall, Zigarmi and Hord, 1979) and Anatomy of Interventions (Hord, Hall & Zigarmi, 1979).[3] Together these instruments identify seven levels of interventions and several dimensions and kinds of interventions which permit more detailed analysis of certain interventions. One of these dimensions is the function, or intent, of the intervention.

This paper reports the number of interventions the study principals reported during the study and analyzes them according to the function of the intervention. (For an analysis of interventions on other dimensions, see Hord, 1981.) The kind of planning the principals did relative to implementation of the innovation is also reported, along with a comparison of the type of planning they did to the number and kinds of interventions they made.

Description of the Study

Subjects of the study were ten elementary school principals. Five served schools located in small-to-medium sized cities; one school was in a small community adjoining a city, and the other four schools were in rural communities. Three of the principals were female and seven male.

One criterion for choosing the subjects was that there had to be an identifiable innovation operating in their school. This was necessary since the purpose of the study was to investigate the plans and actions of principals in

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[3]An intervention is defined as an action or event or set of actions or events that influences use of an innovation.

relation to innovation implementation. The schools were not involved with the same innovation. Five different innovations were in the ten schools. All innovations had been approved by the Joint Dissemination and Review Panel. All subjects volunteered to participate after being informed of the study's purposes.

Five of the subjects were involved with first-year implementation; three were in the second year of innovation use in their schools, and in the other two, the innovation had been in the schools for three and more years.

For a period of three months beginning in November and continuing into February, information was collected from the ten subjects regarding their plans for implementation of the innovation, and their specific interventions. A discussion of the techniques used to collect the desired information is presented by Griffin, Goldstein and Hall (1981). All that need be said here is that most of the data were collected through some means of self-reporting, including personal interviews, telephone reports, tape-recorded reports, and written reports collected on a regular basis. All schools were visited at least twice by a member of the research team, and any relevant observations made were recorded, but those visits were designed to conduct interviews, not make observations.

For this report the interventions which the principal made on the innovation were analyzed according to the function they were intended to serve. The classification of functions was based on the Taxonony of Interventions (Hall, Zigarmi and Hord, 1979) and includes the categories shown in Figure 1. Following the analysis of functions, comparisons were made of kinds and number of functions among and between principals, kind and number of functions based on number of years into the implementation effort, and relationship between functions and the principal's planning.

Figure 1

FUNCTIONS

1. DEVELOPING SUPPORTIVE ORGANIZATIONAL ARRANGEMENTS
   - A. Policy/Decision-Making
   - B. Planning
   - C. Managing (i.e., Scheduling)
   - D. Staffing or Restructuring Roles
   - E. Seeking or providing Materials, Information, Space, Other Resources (i.e., Funds)
   - F. Other (Specify)

2. TRAINING
   - A. Teaching New Knowledge, Skills, Attitudes
   - B. Reviewing
   - C. Clarifying
   - D. Other (Specify)

3. PROVIDING CONSULTATING AND REINFORCEMENT
   - A. Promoting/Encouranging Innovation Use
   - B. Reinforcing/Supporting Innovation Use
   - C. Consulting -- Problem Solving
   - D. Information Sharing (Internal Communication, i.e., Newsletters)
   - E. Other (Specify)

4. MONITORING AND EVALUATION
   - A. Information Gathering (Data Collecting, Pulsing, Probing)
   - B. Data Analysis Processing
   - C. Reporting
   - D. Other

5. EXTERNAL COMMUNICATION
   - A. Informing Outsiders
   - B. Other (Specify)

6. DISSEMINATING
   - A. Gaining Support of Outsiders
   - B. Encouraging/Promoting Use of Innovation by Outsiders
   - C. Other (Specify)

7. IMPEDING
   - A. Discouraging Use
   - B. Interrupting Use
   - C. Other (Specify)

8. Blank (Specify)

Regarding the planning principals did in relation to innovation implementation, several questions were considered. Did the principal establish a game plan (Hall, Zigarmi and Hord, 1979) for implementation prior to the introduction of the innovation into the school? Briefly stated, a game plan is the overall design for the interventions which are made to implement the innovation. If there was initially no defined game plan, could one be described in retrospect based on the actions of the principal?

Number and Type of Interventions

Table 1 shows the number and types of interventions on the innovation that each principal reported during the three months of the study. A look at the totals on this table reveal that the number of reported interventions ranged from two to forty. It is not known whether principals C and H, the two with the lowest number of interventions, either did not make more interventions or did not regularly report them to the research team. It is probable that all the principals made more interventions than they reported (or were even aware of) but it is assumed that these omissions were constant across all subjects.

Total Group Analysis of Functions

A review of Table 1 reveals some interesting patterns in the kinds of interventions made. No interventions were made to impede implementation (Function 7), and very few (N=3) for the purpose of dissemination (Function 6). While these findings were not particularly surprising, it was a bit surprising to note that relatively little training directed at the innovation (Function 2) was provided by the principals. Out of a total of 174 interventions, 5.2 percent of them were for the purpose of training. This might be explained in part by the fact that all innovations included in the study had trainers available

Table 1
Number of Interventions Per Function

Principal	A	B	C	D	E	F	G	H	J	K	Average # of Total
Functions											
1. Supportive Organizational Arrangements											
a. Decision Making											
b. Planning							1				.1/ .6
c. Managing						2	1		1	1	.5/ 2.8
d. Staffing	1	4			1	6	2		1		1.5/ 8.6
e. Providing Resources	4	1	2	7	4	1	1		9		2.9/16.7
SUB TOTALS	5	5	2	7	5	9	5		11	1	5.0/28.7
2. Training											
a. Teaching New Knowledge		1				2			1		.4/ 2.3
b. Reviewing										1	.1/ .6
c. Clarifying				1					3		.4/ 2.3
SUB TOTALS		1		1		2			4	1	.9/ 5.2
3. Consultation & Reinforcement											
a. Promoting Use		2			4	1	1		3		1.1/ 6.3
b. Reinforcing Use	2	7		1	4	1			5		2.0/11.5
c. Problem Solving	3	3		1	1	5	1		6		2.0/11.5
d. Information Sharing									2	2	.4/ 2.3
SUB TOTALS	5	12		2	9	7	2		16	2	5.5/31.6
4. Monitoring & Evaluation											
a. Information Gathering	1	5		1	3	5	4	4	2	10	3.5/20.1
b. Data Analysis											
c. Reporting						1					.1/ .6
SUB TOTALS	1	5		1	3	6	4	4	2	10	3.6/12.1
5. External Communication											
a. Informing Outsiders	4	3		3		1	2		7	1	2.1/12.1
6. Dissemination											
a. Gaining Outside Support											
b. Encouraging Use by Outsiders				1	2						.3/ 1.7
7. Impeding											
a. Discouraging Use											
b. Interrupting Use											
SUB TOTALS											
Total Number of Interventions	15	26	2	15	19	25	13	4	40	13	17.4/100.0

N = 174

through an intermediate educational agency, and the schools tended to rely on them for inservice training. On the other hand, these principals may have felt their teachers needed little or no additional training. A third possibility is that these principals did not perceive training to be one of their facilitator responsibilities.

The highest percentage of interventions (31.6%) was made to provide consultation and reinforcement (Function 3). It is logical that principals would be very supportive if they wanted their teachers to use the innovation. It may also be that some principals used this type of intervention instead of training to facilitate innovation use.

Ranking a close second in percentage of interventions (28.7%) was the function of developing supportive organizational arrangements. Since seven of the ten principals were involved with first or second-year innovations, it seems reasonable that this area would receive considerable attention, particularly the act of seeking or providing resources (1E) which accounted for 16.7 percent of the total interventions. Frequency of interventions in this area may also have been influenced by the fact that many of these kinds of tasks are traditional administrative responsibilities of principals.

Interventions made to monitor and evaluate (Function 4) were the third most numerous (20.7%), while external communication interventions (Function 5) were fourth in frequency (12.1%). This external communication was to inform outsiders, such as parents, board members, or other educators about the innovation, not to try to get others to use the innovation, which is Function 6.

At least one principal in the study had reservations about the innovation in his school and was even looking at possible replacement programs, but neither he nor any of the others reported interventions intended to impede the existing innovation.

Interventions and Years of Implementation Experience

How did the principals compare in terms of number and kinds of interventions when grouped according to the number of years involved with the innovation? Table 2 presents that information. Principals A-E were first-year implementors, Princials F-H were second-year implementors, while Principals J and K were working with innovations that had been in their schools for at least three years.

The first and second-year groups averaged 15.4 and 14.0 interventions, respectively, while the third year principals averaged 27.5. It must be noted that the average for the third year-group was markedly influenced by Principal J. Principal J was clearly a very active facilitator, whereas the other third year implementor (Principal K) reported many fewer interventions, more in line with the first - and second year implementors. Under any conditions, one conclusion that might be drawn is that an innovation requires at least as much attention from the principal in the third year as in the first and second year.

In the first-year group 36.4 percent of the interventions were for consultation or reinforcement, while 31.3 percent were to develop supportive organizational arrangements. More than two-thirds of all interventions reported by this first-year group were in these two areas. It is reasonable that during the first year of an implementation effort a principal would need to consult with and reinforce teachers as they confront the demands and uncertainties of a new program. Also, there would be a need for much organizational support. A smaller percentage of interventions was directed at the two functions of monitoring and evaluation and external communication (13% each). During the first year it might be assumed that evaluation of the program would not be high priority, and, indeed, it was not. On the other hand, it might have been ex-

Table 2

Year of Implementation and
Number of Interventions Per Function

Principal Implementation Year / Functions	A/1	B/1	C/1	D/1	E/1	Average % of Total	F/2	G/2	H/2	Average % of Total	J/3	K/3	Average % of Total
1. Supportive Organizational Arrangements													
a. Decision Making													
b. Planning								1		.3/ 2.4			
c. Managing							2	1		1.0/ 7.1	1	1	1.0/ 3.6
d. Staffing	1	4			1	1.2/ 7.8	6	2		2.7/19.0	1		.5/ 1.9
e. Providing Resources	4	1	2	7	4	3.6/23.4	1	1		.7/ 4.8	9		4.5/16.4
SUB TOTALS	5	5	2	7	5	4.8/31.2	9	5		3.8/33.3	11	1	6.0/21.8
2. Training													
a. Teaching New Knowledge		1				.2/ 1.2	2			.7/ 4.8	1		.5/ 1.9
b. Reviewing												1	.5/ 1.9
c. Clarifying				1		.2/ 1.2					3		1.5/ 5.4
SUB TOTALS		1		1		.4/ 2	2			.7/ 4.8	4	1	2.5/ 9.2
3. Consultation & Reinforcement													
a. Promoting Use		2			4	1.2/ 7.8	1	1		.7/ 4.8	3		1.5/ 5.4
b. Reinforcing Use	2	7		1	4	2.8/18.2	1			.3/ 2.4	5		2.5/ 9.1
c. Problem Solving	3	3		1	1	1.6/10.4	5	1		2.0/14.3	6		3.0/10.9
d. Information Sharing											2	2	2.0/ 7.3
SUB TOTALS	5	12		2	9	5.6/36.4	7	2		1.../ 21.5	16	2	9.0/32.7
4. Monitoring & Evaluation													
a. Information Gathering		5		1	3	2.0/13.0	5	4	4	4.3/31.0	2	10	6.0/21.7
b. Data Analysis													
c. Reporting							1			.3/ 2.4			
SUB TOTALS	1	5		1	3	2.0/13.0	6	4	4	4.6/33.3	2	10	6.0/21.8
5. External Communication													
a. Informing Outsiders	4	3		3		2.0/13.0	1	2		1.0/ 7.1	7	1	4.0/14.5
6. Dissemination													
a. Gaining Outside Support													
b. Encouraging Use by Outsiders				1	2	1.6/3.8							
7. Impeding													
a. Discouraging Use													
b. Interrupting Use													
SUB TOTALS													
Total Number of Interventions	15	26	2	15	19	15.4/100.0	25	13	4	14.0/100	40	15	27.5/100.0
		N = 77						N = 42				N = 55	

pected that during the first year more efforts would have been made to inform parents and community about the new program.

It was a bit surprising to learn that second-year principals averaged even more interventions (33.3%) to develop supportive organizational arrangements, than did the first-year group. The highest percentage of those interventions were related to staffing. Perhaps an innovation creates needs for staffing changes during the second year.

In reverse of the pattern for the first-year group, the second-year principals did more monitoring and evaluating (33.3%) and less consulting and reinforcing (21.5%). By the second year, it is reasonable that principals would give more consideration to how the implementation effort is progressing. Consultation and reinforcement interventions could be lower in the second year because teachers have developed some ways for coping with the innovation and need less assistance; or it could be that principals assume that to be true, so they provide less consultation and reinforcement. Whatever the reasons may be, the pattern of interventions for first and second-year principals do provide an interesting comparison.

The third-year implementation group had only two subjects, and they were quite different in their number and pattern of interventions, so it would be unwise to do more than point out some trends for this group. Of particular interest is the fact that somewhat fewer interventions were made by these two principals than the others for the purpose of providing supportive organizational arrangements. Perhaps this indicates, as might be expected, that by the third year of use of an innovation supportive organizational arrangements are more likely to be in place. Another finding of interest is that 14.5% of the total interventions made by these principals was made to inform outsiders, the highest percentage for the three principal groups. In the case of these

principals this informing was a matter of telling others how much they liked the innovation. The highest number of interventions (32.7%) were made for consultation and reinforcement suggesting that this will always be an important function of principals when facilitating change.

Across the three groups of principals representing varying years of implemetation experience with the innovation in their schools, there were several common trends. The greatest numbers of interventions were directed toward three functions: 1) developing supportive organizational arrangements, 2) consultation and reinforcement, and 3) monitoring and evaluation. Relatively few interventions were made for the purpose of training teachers in use of the innovation and even fewer to disseminate the innovation. There were a moderate number of interventions made to inform outsiders about the innovation.

Game Plans

At the ideal level, one might think of a game plan as it is prepared by a professional football team. In advance of the actual game, the coach and team establish in careful detail which offensive plays they intend to call under certain circumstances and which defensive alignments they will use. Beyond that, they try to anticipate all possible situations in which the team may find itself and to plan out in advance what actions they will take for each of those many possibilities. All of these plans are written or diagrammed out and organized in a manner that makes them immediately accessible to the coaches at any time during the game.

We did not find any principal who had developed a game plan for innovation implementation with the same sophistication as that of a professional football team. None of the principals had prepared a written game plan. None had even mentally conceived of a game plan in the formal sense of a detailed step-by-

step procedure, including contingency plans if the implementation effort did not go as planned. Nevertheless, every principal had in mind some idea of how to conduct the implementation effort and a game plan could be identified in retrospect. Differences in principals were found in how detailed their ideas for implementation were and what procedures they followed. The ten principals could be divided into three groups on the basis of their game plans.

Four of the principals provided support for the innovation in the form of materials and resources and occasionally made it possible for teachers to attend externally provided training workshops. If a problem was brought to them, they would try to resolve it; or if there was an obvious opportunity to reinforce use of the innovation, they might do so. There were no regular meetings with teachers as a total faculty or in smaller groups to discuss the innovation. Contacts with individual teachers, when they occurred, were spontaneous and brief. These principals felt they had a pretty good understanding of what was happening regarding use of the innovation. Whether they did or not is not known; but whatever was happening, they were not intervening in any direct or regular way to influence it. These principals seemed to use an indirect approach to facilitating the implementation effort.

One principal was identified as using a delegated approach. This principal chose to assume a very low profile and to give the teachers much responsibility for implementation, but he was not uninvolved.[4] Key members of the faculty were asked to serve as liaison for groups of teachers. These liaison persons were then asked to report regularly on the progress their group was

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[4]Throughout this paper the masculine pronoun is used for both males and females.

making in use of the innovation. To encourage progress, the principal would set expectations and deadlines. He would also convene the entire faculty to help them maintain an overall view of the implementation process. In all of his actions the principal gave the teachers much credit and reinforcement but made every effort to leave the responsibility for implementation with the teachers. Delegative is a term that best describes this principal's approach for most of the responsibility for implementing the innovation was delegated to the faculty.

The remaining five principals were very aware of what was happening with the innovation, and they took planned action to encourage and support innovation use. These actions came in the form of frequent contacts with teachers to discuss the innovation and to solve any problems that they had. Through these visits, and in other ways, these principals conveyed to their teachers how they felt the implementation process was going, as well as making it fairly clear what was expected of them. These expectations were not specified as detailed edicts, but were conveyed in more subtle ways, such as praising desired use, sharing the success of one teacher with teachers, and helping individual teachers take another step toward improved use.

In addition to providing support and encouragement, these principals also provided resources and information to support continued training in use of the innovation, usually provided by outside consultants. In this group of five principals, four of them relied primarily on individual contacts with teachers, while the fifth one worked more with groups, or the entire faculty, or through selected teacher leaders in the school. These principals could be described as direct in their approach to implementation. They were not autocratic or dictatorial, they simply accepted responsibility for implementation and were just very actively involved in facilitating implementation.

Principals in the latter group seemed to have game plans that were more detailed and specific than the game plans of the group of four principals first described. Also, there was evidence that this group of five principals decided on their game plans earlier in the implementation process. For all principals, the interventions and behaviors that were recorded were closely representative of their game plans.

Another interesting aspect of the principals' game plans was the degree to which they were involved in the selection of the innovation for their school. Five of the principals were actively involved, along with their teachers, in the selection of the innovation, so their game plans actually began with the selection process. In each of these cases, the selection process did involve teachers and principals considering various programs that might meet their needs before making their choice. These principals were all supportive of the innovations in their school. One principal was not actively involved in the selection process, but was accepting of the innovation chosen by the faculty. Two principals were assigned to their schools after the inovation had been chosen. They were both supportive of the innovations. In the other two cases, the innovation was selected at the district level, and these two principals were neutral, if not a bit indifferent, toward the programs.

It would be inappropriate to conclude that the manner in which an innovation is selected determines a principal's game plan. Certainly it may influence the game plan, but the two principals who were assigned to their schools after the innovation was chosen were quite positive and supportive. At the same time, among the six principals who had a "chosen" innovation, there was as much variance in game plans as there was among all ten principals. A hypothesis, certainly not a conclusion, that might be drawn from this information is

that factors other than the way the innovation is chosen account for principals' game plans for implementation.

Interventions Related to Game Plans

Comparisons were made between the kind and number of interventions the principals made and the game plans they followed. To accomplish this the principals were grouped into the three groupings described above, direct, delegative, and indirect. Table 3 presents these comparisons.

Perhaps the most striking difference is seen in the total number of interventions. The direct principals averaged 25 interventions each during the study period; the delegative principal made 15; and the indirect averaged only 8.5 interventions.

In terms of functions, the direct group made most of their interventions for the purpose of providing consultation and reinforcement (39.2%), while the delegative and indirect principals intervened for this purpose 13.3 and 11.7% of the time, espectively. Indirect principals made their greatest number of interventions to develop supportive organizational arrangements (41.2%), particularly providing materials, resources, and information. The direct principals intervened much less for this same function (28%). Perhaps the direct principals felt the best way to support their teachers was through the more personal function of consultation and reinforcement, while the indirect group felt they could best support teachers through supportive organizational arrangements.

The principal following the delegative approach intervened two-thirds of the time to monitor the progress of implementation (Function 4). Twenty-six percent of the indirect principals' interventions were for this same purpose, but the direct principals intervened only 13.6% of the total for the purpose.

Table 3
Interventions by Implementation Approach

Implementing Approach	Direct					Average / % of Total	Delegative	Indirect				Average / % of Total
Functions												
1. Supportive Organizational Arrangements												
a. Decision Making												
b. Planning										1		.25/ 2.9
c. Managing			2	1		.6/ 2.4	1			1		.25/ 2.9
d. Staffing	1	4	6	1	1	2.6/10.4				2		.50/ 5.9
e. Providing Resources	4	1	1	9	4	3.8/15.2		2	7	1		2.50/29.5
SUB TOTALS	5	5	9	11	5	7.0/28.0	1	2	7	5		3.50/41.2
2. Training												
a. Teaching New Knowledge		1	2	1		.8/ 3.2						
b. Reviewing							1					
c. Clarifying				3		.6/ 2.4			1			.25/ 2.9
SUB TOTALS		1	2	4		1.4/ 5.6	1		1			.25/ 2.9
3. Consultation & Reinforcement												
a. Promoting Use		2	1	3	4	2.0/ 8.0				1		.25/ 2.9
b. Reinforcing Use	2	7	1	5	4	3.8/15.2			1			.25/ 2.9
c. Problem Solving	3	3	5	6	1	3.6/14.4			1	1		.50/ 5.9
d. Information Sharing				2		.4/ 1.6	2					
SUB TOTALS	5	12	7	16	9	9.8/39.2	2		2	2		1.0 /11.7
4. Monitoring & Evaluation												
a. Information Gathering	1	5	5	2	3	3.2/12.8	10		1	4	4	2.3 /26.5
b. Data Analysis												
c. Reporting			1			.2/ .8						
SUB TOTALS	1	5	6	2	3	3.4/13.6	10		1	4	4	2.3 /26.5
5. External Communication												
a. Informing Outsiders	4	3	1	1		3.0/12.0	1		3	2		1.2 /14.8
6. Dissemination												
a. Gaining Outside Support												
b. Encouraging Use by Outsiders					2	.4/ 1.6			1			.25/ 2.9
7. Impeding												
a. Discouraging Use												
b. Interrupting Use												
SUB TOTAL												
Total Number of Interventions	15	26	25	40	19	25.0/100	15	2	15	13	4	8.5 /100.0
			N = 125				N = 15			N = 34		

Informing outsiders was a function carried out more frequently by the indirect group than the other two. None of the groups intervened much for the purpose of training or disseminating.

Interventions made by the three groups of pricipals did differ in important ways, as reflected in the kinds of number of interventions they made.

Final Comments

It was possible to collect data on the interventions principals make in relation to the implementation of an innovation in their school. Once collected, it was possible to analyze those interventions according to the functions they were intended to serve. When data for the entire sample were analyzed, it revealed an interesting picture of the kinds of interventions these principals did and did not make. Information of this type can be very useful to principals (or any change facilitators). If principals find they are attending more or less than they wish to a particular function, they can modify their actions accordingly.

In future research it will be interesting to learn if other principals also make only limited interventions to facilitate training. Principals in this study may have made relatively few interventions for the purpose of training because they relied on the training assistance available from the intermediate service agency.

Comparing principals according to number of years the innovation had been in their school revealed some similarities and differences among groups in terms of the function of the interventions. It was not possible to determine if the intervention patterns were due to years of experience with the innovation or other factors, such as school and community context and climate, or to the principal's game plan and general approach to implementation.

There was a relationship between the game plans principals had and the approach to implementation they followed. Those who were more directive seemed to do more initial planning and have more detailed plans. This group of principals also intervened more than the other principals. It is not known whether there was a cause-and-effect relationship involved here. For example, did the absence of a detailed game plan lead to fewer interventions and an indirect approach to implementation, or did these principals not have detailed plans and not intervene as much because their intention was to be indirect.

A major question the CBAM Project is hoping to eventually answer is, "How do the intervention behaviors of principals relate to, or influence, implementation effectiveness?" Since no attempt was made in this study to study the actual implementation of the innovations in the ten schools, no answer to that question was developed. However, this study did establish a process for studying principals' intervention behaviors, and it established baseline data on the behaviors of ten principals. Adding to this data base and relating the intervention behaviors of principals to actual implementation of innovations is now the focus of ongoing studies by the CBAM Project.

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